

# Work Order ID 81121

March-08-12 8:53:56 AM

**\*81121\***

Page 1

Item ID: D3562-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Step Assembly, LH  
 Start Date: 08/03/2012 Start Qty: 4.00 **\*4\*** Cust Item ID:  
 Required Date: 22/03/2012 Req'd Qty: 4.00 **\*4\*** Customer:

Reference:

Approvals: Process Plan: MLJ Date: 12/03/09 Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D3562	Rev E								
100	Large Fab	0.00							
<b>*100*</b>									
Large Fab	Memo	0.00							
Large Fab	1-Cut D2622 extrusion as per Dwg D3562 2-Deburr and bevel ends for welding								
110	QC6- Inspect dimensions to drawing	0.00							
<b>*110*</b>									
QC	Memo	0.00							
Quality Control									
120	Chemical Conversion Coat per QSI005 4.1	0.00							
<b>*120*</b>									
HandFinish	Memo	0.00							
Hand Finishing									

(x4)

Ac 12.04.16

~~Ac 12.04.16~~

SS 12.04.17

PL 12.04.18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 <b>*130*</b> QC Quality Control	QC3- Inspect Part Finish  Memo	0.00  0.00				4x	Ø		12/04/19
140 <b>*140*</b> Small Fab Small Fab	Small Fab  Memo 1- Transfer drill Rivet holes as per dwg D3562. 2-Touch-up rivet holes with alodine as per dwg d3562 3-Rivet legs using Magnabond as per dwg D3562. *****Ensure to wipe off any excess magnobond ***** A/R Magnabond 6398 Batch: 120666	0.00  0.00				4x	Ø		Acc 12.04.19
150 <b>*150*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00				Ø			12/04/19

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**\*81121\***

Page 3

[illegible]

W/O:		WORK ORDER CHANGES					
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Page 5

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 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	QC3- Inspect Part Finish	0.00							
<b>*220*</b>									
QC	Memo	0.00				4/24	0		12/05/01
Quality Control									
230	Identify as per dwg & Stock Location: <b>G.A</b>	0.00							
<b>*230*</b>									
Packaging	Memo	0.00				4/2	0		12/05/01
Packaging									
240	QC21- Final Inspection - Work Order Release	0.00							
<b>*240*</b>									
QC	Memo	0.00							
Quality Control									

MF  
12-05-01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Picklist Print

March-08-12 8:54:00 AM

Page 1  
2

Work Order ID: 81121

Parent Item: D3562-041

Parent Item Name: Step Assembly, LH

\*81121\*

\*D3562-041\*

Start Date: 08/03/2012

Required Date: 22/03/2012

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 06-11-09 JLM  
IPP rev B ECN 987 07.10.09 EC verified by: DD  
IPP Rev:C ECN1048 07-12-18 DD verified by:ec  
IPP Rev:D 08-07-28 add chemical conversion coat DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2622-120C

Manufactured

No

100

Each

100.7300

1

4

\*D2622-120C\*

Step Extrusion

\*\*

~~381507~~ (x4) to 12.04.16  
381507 (x4) to 12.04.16

Location

Loc Qty

Loc Code

HALL

16.37

46910

2

64409

6

66970

7.7

68293

0.25

72131

0.42

WA013

84.36

75781

2.4

77612

81.96

D2734

Manufactured

No

140

Each

113.0000

2

8

\*D2734\*

Step End Plate

\*\*

to 12.04.20

Location

Loc Qty

Loc Code

WA

113

76985

53

80682

60

D3560-041

Manufactured

No

140

Each

5.0000

1

4

\*D3560-041\*

Arm Weldment

\*\*

to 12.04.17

Location

Loc Qty

Loc Code

WA

8123

5

79076

5

3

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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March-08-12 8:54:00 AM

Page 2

Work Order ID: 81121

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Parent Item: D3562-041

**\*D3562-041\***

Parent Item Name: Step Assembly, LH

Start Date: 08/03/2012

Required Date: 22/03/2012

Start Qty: 4.00

Required Qty: 4.00

D3560-043

Manufactured No

140

Each

6.0000

1

4

**\*D3560-043\***

Arm Weldment

\*\*

12.04.17

Location

Loc Qty

Loc Code

WA

81125

6

79077

6

2

MS20600-AD4W5

Purchased

No

160

Each

841.0000

32

128

**\*MS20600-AD4W5\***

Blind Rivet

\*\*

M121255 (x70) 12.04.19  
73

Location

Loc Qty

Loc Code

ST321

783

114382

173

117505

5

118384

226

120142

100

120594

279

WA018

58

111477

6

120570

52

(x58) (55)

W/O:		WORK ORDER CHANGES					
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**NOTE:** Date & initial all entries

D3562-1,  
MAKE FROM  
EXTRUSION D2622

2  
APPLY BLACK  
ANTI-SKID ON  
TOP SURFACE  
TO BOTTOM  
OF TOP RADIUS

D3560-043 ARM WELDMENT

D3560-041 ARM WELDMENT

D3560-044 ARM WELDMENT

D3560-042 ARM WELDMENT

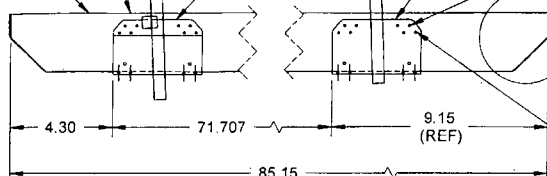
D3562-1,  
MAKE FROM  
EXTRUSION D2622

2  
APPLY BLACK  
ANTI-SKID ON  
TOP SURFACE  
TO BOTTOM  
OF TOP RADIUS

TRANSFER DRILL #30  
DEBURR & TOUCH UP HOLES  
WITH CHEMICAL CONVERSION  
COAT BEFORE RIVETING  
(32 PLACES PER STEP)

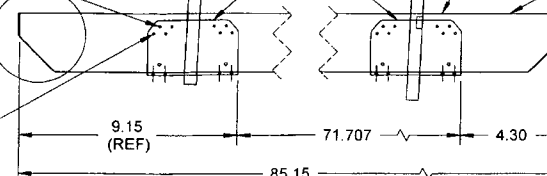
REFER TO STEP  
END DETAIL

INSTALL MS20600AD4W5 RIVET  
(32 PLACES PER STEP)



MEASURED BEFORE END CAPS WELDED IN PLACE

FWD



MEASURED BEFORE END CAPS WELDED IN PLACE

FWD

ROUND CORNER OF EXTRUSION TO  
MATCH BEND RADIUS OF END PLATE

NOTE: ALL WELDS SHALL BE 100%  
VISUALLY INSPECTED BY A  
QUALIFIED INSPECTOR PER  
DART QSI 004

SHOP COPY

RETURN TO  
ENGINEERING

UNCONTROLLED COPY  
SUBJECT TO AMENDMENT

WITHOUT NOTICE  
WORK ORDER

NO. 81121 MCT

12103109

D2734 END PLATE  
(TYP 2 PLACES)  
TYPICAL STEP END DETAIL  
SCALE 1:2

**D3562-041 LH STEP ASSEMBLY**

**D3562-042 RH STEP ASSEMBLY**

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH:

i) CHEMICAL CONVERSION COAT STEP EXTRUSION  
PER DART QSI 005 4.1 BEFORE ASSEMBLY

ii) POWDER COAT ASSEMBLY GLOSS WHITE (4.3.5.1) OR  
GREY SANDTEX (4.3.5.6) OR  
BLACK SANDTEX (4.3.5.7) OR  
GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3

iii) BLACK ANTI-SKID PAINT PER DART QSI 005 4.4

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: NONE

7) WEIGHT: 8.79 lbs

8) INSTALL ARM WELDMENTS WITH A LAYER OF MAGNOBOND 6398 BETWEEN  
THE ARM WELDMENT AND STEP EXTRUSION. FILL ANY TOOLING HOLES WITH  
MAGNOBOND 6398. CLEAN OFF EXCESS BEFORE POWDER COATING.

9) WELDING: PER DART QSI 004

QTY -041	QTY -042	P/N	DESCRIPTION
X		D3562-041	LH STEP ASSEMBLY
	X	D3562-042	RH STEP ASSEMBLY
1		D3560-041	ARM WELDMENT
	1	D3560-042	ARM WELDMENT
1		D3560-043	ARM WELDMENT
	1	D3560-044	ARM WELDMENT
32	32	MS20600AD4W5	RIVET
2	2	D2734	END PLATE

E	ADD QTY (2) TO D2734 END PLATE ON D3562-042	PH	08.01.11
D	REMOVE D2808 SPACER NOTE; REDRAWN IN SOLIDWORKS	DC	07.11.16
C	NOW MAGNOBOND, ADD D2808, REMOVE 4 RIVETS	CP	07.06.19
B	ARMS NOW RIVETED TO STEP	CP	07.01.15
A	NEW ISSUE	CP	06.09.26
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.01.11		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.

D3562

TITLE

STEP ASSEMBLY

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REV. E

SHEET 1 OF 1

SCALE

1:5

W/O:		WORK ORDER CHANGES					
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